

AMENDED CLAIMS

Claims 1-27 (canceled)

Claim 28 (new) A linear motor comprising:

- (a) a tubular outer yoke;
- (b) a tubular inner yoke disposed in said outer yoke;
- (c) a coil provided to one of said outer yoke and said inner yoke;
- (d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and
- (e) a tubular vibrator made of magnetic material and supporting said permanent magnet, said vibrator locating between said outer yoke and said inner yoke.

Claim 29 (new) The linear motor as defined in Claim 28 said motor further comprising a slit formed extendedly along a circumference direction of said vibrator.

Claim 30 (new) The linear motor as defined in Claim 28 wherein said permanent magnet is fixed to a side face of said vibrator facing said coil.

Claim 31 (new) The linear motor as defined in Claim 28 wherein electrical resistance of said vibrator is not less than  $100 \mu \Omega \cdot \text{cm}$ .

Claim 32 (new) The linear motor as defined in Claim 28 wherein permeability of said vibrator is more than 10 times as that of vacuum.

Claim 33 (new) The linear motor as defined in Claim 28 wherein said vibrator is made of material comprising iron and chrome.

Claim 34 (new) The linear motor as defined in Claim 28 wherein said vibrator is made of material comprising 80 – 90 wt% of iron and 10 – 20 wt% of chrome.

Claim 35 (new) The linear motor as defined in Claim 28 wherein said vibrator is made of material comprising iron, chrome and aluminum.

Claim 36 (new) The linear motor as defined in Claim 28 wherein said vibrator is made of material comprising 75 – 88 wt% of iron, 10 – 20 wt% of chrome and 2 – 5 wt% of aluminum.

Claim 37 (new) The linear motor as defined in Claim 28 wherein said vibrator is made of material comprising iron and silicon.

Claim 38 (new) The linear motor as defined in Claim 28 wherein said vibrator is made of material comprising nickel and iron.

Claim 39 (new) The linear motor as defined in Claim 28 said motor further comprising a slit provided on a side face of said vibrator.

Claim 40 (new) The linear motor as defined in Claim 39 wherein said slit is long and narrow along a vibrating direction of said vibrator.

Claim 41 (new) The linear motor as defined in Claim 28 said motor further comprising a section made of electrically insulating resin and provided on a side

face of said vibrator.

Claim 42 (new) The linear motor as defined in Claim 28 wherein at least one of said outer yoke and said inner yoke is a compression-formed body made of metal magnetic particles.

Claim 43 (new) The linear motor as defined in Claim 28 wherein at least one of said outer yoke and said inner yoke is a compression-formed body made of metal magnetic particles and electrically insulating resin.

Claim 44 (new) The linear motor as defined in Claim 28 wherein at least one of said outer yoke and said inner yoke is a compression-formed body made of metal magnetic particles, and has an electrically insulating layer on a surface thereof.

Claim 45 (new) The linear motor as defined in Claim 44, wherein the electrically insulating layer is made of inorganic material.

Claim 46 (new) The linear motor as defined in Claim 42, wherein said at least one of said outer yoke and said inner yoke is divided in a circumference direction.

Claim 47 (new) The linear motor as defined in Claim 42, wherein an insulating layer is provided on a bonding face of said at least one of said outer yoke and said inner yoke.

Claim 48 (new) A linear motor comprising:  
(a) a tubular outer yoke;

(b) a tubular inner yoke disposed in said outer yoke;

(c) a coil provided to one of said outer yoke and said inner yoke;

(d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and

(e) a tubular vibrator supporting said permanent magnet,

wherein said permanent magnet is fixed to said vibrator on a side of one of said outer yoke and said inner yoke whichever includes said coil.

Claim 49 (new) A linear motor comprising:

(a) a tubular outer yoke;

(b) a tubular inner yoke disposed in said outer yoke;

(c) a coil provided to one of said outer yoke and said inner yoke;

(d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and

(e) a tubular vibrator supporting said permanent magnet,

wherein at least one of said outer yoke and said inner yoke is a compression-formed body made of metal magnetic particles.

Claim 50 (new) A compressor including a linear motor, said motor comprising:

(a) a tubular outer yoke;

(b) a tubular inner yoke disposed in said outer yoke;

(c) a coil provided to one of said outer yoke and said inner yoke;

(d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and

(e) a tubular vibrator made of magnetic material and supporting said permanent magnet, said vibrator locating between said outer yoke and said inner yoke.

Claim 51 (new) A compressor including a linear motor, said motor comprising:

(a) a tubular outer yoke;

(b) a tubular inner yoke disposed in said outer yoke;

(c) a coil provided to one of said outer yoke and said inner yoke;

(d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and

(e) a tubular vibrator supporting said permanent magnet, wherein said permanent magnet is fixed to said vibrator on a side of one of said outer yoke and said inner yoke whichever includes said coil.

Claim 52 (new) A compressor including a linear motor, said motor comprising:

(a) a tubular outer yoke;

(b) a tubular inner yoke disposed in said outer yoke;

(c) a coil provided to one of said outer yoke and said inner yoke;

(d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and

(e) a tubular vibrator supporting said permanent magnet,  
wherein at least one of said outer yoke and said inner yoke is a  
compression-formed body made of metal magnetic particles.